

## PROSTHETIC SURGERY FOR GENITAL PROLAPSE: FUNCTIONAL OUTCOME

### Aims of study

Recurrence after surgery for genital prolapse averages between 20 and 40% regardless the used technique. In the past some authors have tried to identify risk factors for relapse in order to identify candidates to the use of prosthetic material. The studies conducted in the past on this issue showed good results in restoring anatomy. However a considerable rate of morbidity was reported and functional aspects both for the anterior and posterior vaginal compartments were rarely considered in the literature. In this study we specifically investigated the effects of the use of anterior and/or posterior prolene mesh on urinary, bowel and sexual functions.

### Methods

In this study we included women referred to two different urogynaecological outpatient clinics with symptomatic genital prolapse and at least one of these risk factors for recurrence: familiarity, obesity, previous prolapse surgery, collagen abnormalities, bronchopneumonia, presence of varicosity and/or hernia, chronic straining at defecation. A complete urogynaecological history was taken. It included the assessment of prolapse symptoms, lower urinary tract symptoms (frequency, urgency, nocturia, urinary stress and urge incontinence), bowel disorders (constipation and anal incontinence) and dyspareunia. Preoperatively all the patients were examined and then had a complete urodynamic test. All the patients were underwent surgery during which a prolene mesh was used to repair the vaginal segment involved in the descensus. After surgery each patient was reassessed using the same criteria. At follow up we collected data both on surgical morbidity, such as infection, haematoma, mesh erosion and on bladder, anal and sexual function. All the data were then stored into a database. A separate analysis was performed as to whether prosthetic material was placed on the anterior or on the posterior vaginal compartment.

### Results

Sixty-three women, with a mean age of 63 years (ranging from 49 to 82 years) were considered. The mean time at follow-up was 17 months (min 3 – max 48). The overall efficacy rate, in terms of restoration of anatomy, was 94%.

Thirty-two women had an operation to repair an anterior vaginal compartment prolapse. Their mean age was 63 years (range 44-82 years). All of them had at least a moderate cystocele (Ba  $\geq$  0). Table 1 shows the pre and post-operative characteristics (expressed as percentage) of these women for prolapse symptoms, sexual activity and dyspareunia.

*Table 1.* Pre and postoperative symptoms related to prolapse and sexual activity (%) in women who had an anterior repair with prolene mesh

	<b>Prolapse Symptoms</b>	<b>Sexually active</b>	<b>Dyspareunia</b>
<b>Preoperatively (%)</b>	76	53	18
<b>Postoperatively (%)</b>	10	53	38

Four cases of de novo dyspareunia were observed.

Table 2 shows the pre and post-operative characteristics (expressed as percentage) of these women for urinary symptoms and urodynamic data.

Table 2. Pre and postoperative urinary symptoms and urodynamic data (%) in women who had an anterior repair with prolene mesh

	Urinary symptoms			Urodynamics	
	Urgency	Urge incontinence	Stress incontinence	Sphincter incompetence	Unstable bladder
<b>Preoperatively (%)</b>	50	16	25	54	22
<b>Postoperatively (%)</b>	40	17	23	44*	56*

\* 16 women

Twenty percent of women in this group experienced recurrent urinary tract infection after surgery; in these cases we performed a cystoscopy, which resulted normal in all cases. Mesh erosion through the vaginal wall was observed in 13% of cases.

The other 31 women, with a mean age of 63 years (range 50-80 years) had a posterior repair with the use of a prolene mesh for at least a moderate rectocele (Bp  $\geq$  0). Table 3 shows the pre and post-operative characteristics (expressed as percentage) of these women for prolapse symptoms, sexual activity, dyspareunia and bowel function.

Table 3. Pre and postoperative symptoms related to prolapse and sexual activity (%) in women who had an anterior repair with prolene mesh

	Prolapse Symptoms	Sexually active	Dyspareunia	Constipation (Mean Wexner score)	Faecal Incontinence
<b>Preoperatively (%)</b>	72	55	6	45 (5.8)	7
<b>Postoperatively (%)</b>	12	43	69	30 (3.1)	3

We had one case of de-novo faecal incontinence

Ten percent of women in this group experienced recurrent urinary tract infection after surgery; in these cases we performed a cystoscopy, which resulted normal in all cases. Mesh erosion through the vaginal wall was observed in 6,5% of cases. We also had a pelvic abscess, and the mesh was surgically removed.

### **Conclusions**

This study confirms that, despite good anatomical results, the use of prolene mesh for prolapse repair carries morbidity in terms of erosion through the vaginal wall, de-novo dyspareunia and de novo unstable bladder at urodynamics. On the basis of these data we believe that the use of prolene mesh for prolapse repair should be abandoned and that the new materials coming out in the market should be assessed not only for efficacy but also for bladder, bowel and sexual function.